IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Melissa D. Beebe, Heather L. Fenner, Kevin T. Jones
Assignee:	Dell Products L.P.
Title:	Automated Data Warehouse for Demand Fulfillment System
Serial No.:	09/847,244
Examiner:	Elaine Gort
Docket No.:	DC-02828

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PRE-APPEAL BRIEF REQUEST FOR REVIEW AND STATEMENT OF REASONS

Sir:

Applicant requests review of the Final Rejection in the above-identified application. No amendments are being filed with the request. This request is being filed with a Notice of Appeal. The following sets forth a succinct, concise, and focused set of arguments for which the review is being requested.

CLAIM STATUS

Claims 1 - 12 and 19 - 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Slotznick, U.S. Patent No. 5,983,200 (Slotznick) in view of Yamamoto et al., U.S. Patent (Yamamoto) and Examiner's Official Notice.).

REMARKS

The following remarks provide applicants' position regarding how the claims distinguish over the art of record. While not discussed herein, all the arguments presented regarding hindsight reconstruction and suggestion to combine are maintained.

Claims 1 – 12 and 19 - 30 are pending in the application. Claims 1 - 12 and 19 - 30 are rejected. Claims 13 – 18 have been cancelled. Claims 19 and 30 have been amended. No new claims have been added.

Applicants submit herewith a Terminal Disclaimer to obviate a provisional double patenting rejection over co-pending application serial no. 10/320,889, co-pending application serial no. 10/774,330, and co-pending application serial no. 10/172,306.

Claims 1 - 12 and 19 - 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Slotznick, U.S. Patent No. 5,983,200 (Slotznick) in view of Yamamoto et al., U.S. Patent (Yamamoto) and Examiner's Official Notice. This rejection is respectfully traversed.

The present invention generally relates to a method for scheduling work and delivery of material for mass-producing items in a factory.

The specification sets forth:

> The phrase "[performing a function] immediately prior [to an event]" is used to describe performing a function at the last possible moment such that insufficient time remains to perform the function again before the event. This phrase is used to describe determining the current state of the available inventory and obtaining outstanding customer orders, and is intended to indicate that the inputs to generating the schedules are continuously updated so that they continuously reflect current supply and demand. With a current measure of supply and demand, work and material delivery schedules are accurate and efficient, minimizing excess inventory in the factory and producing items to fulfill customer demand as quickly and efficiently as possible. (Application, page 20, lines 7 – 15.)

Additionally, the specification sets forth

> Another advantage of the invention is that it enables the factory to initiate more than one work schedule/build cycle and material delivery schedule during a given time period, such as during a manufacturing shift, without the need to maintain substantial in-house inventory of parts and/or raw materials. Manufacturing and delivery of materials are scheduled in response to customer demand rather than driven by a demand forecast or scheduled only at fixed intervals. More than one work schedule and material delivery schedule can be provided during a given time period because the automated data warehouse provides an almost immediate source of current supply and demand. (Application, page 21, lines 5 – 12.)

Slotznick discloses an intelligent agent executes tasks by using intelligent agent learning modules which store information necessary to execute the tasks. A computer receives a command to execute a task or receives data which causes a task request to be generated. The

computer accesses appropriate information in the learning modules to execute the task, and outputs instructions for output devices to execute the tasks. The tasks may be executed at a future time and on a periodic basis. The learning modules build up a database of information from previously executed tasks, and the database is used to assist in executing future tasks. The tasks include physical commercial transactions. Portions of the intelligent agent may be remotely located and interconnected via remote communication devices.

Yamamoto relates to a production system for retail goods such as beauty products and more particularly to a production system which receives sales information from retail outlets and manufactures goods based upon this sales information. The production system includes a retail sales information collecting means, a production quantity setting means for determining a production quantity according to the information so collected, a directing means for directing the preparation and production of raw materials according to the determined production quantity, and a production means for producing the determined production quantity according to a direction to produce. Yamamoto also discloses a raw material ordering system, which determines production quantities of raw materials in accordance with production plans for ensuring flexible production of the products without the disadvantage of carrying excessive inventories and for economical and efficient control and supply of raw materials.

Slotznick and Yamamoto, taken alone or in combination, do not teach or suggest a method for scheduling work and delivery of material for mass-producing items in a factory where such a method includes obtaining at least one outstanding customer order, *determining a current state of an available inventory of at least one material from a plurality of material sources*, and *periodically generating a work schedule and a material delivery schedule for producing the item using the at least one outstanding customer order and the current state of the available inventory*. Much less such a method in which each outstanding customer order of the at least one outstanding customer order includes an item ordered by a customer, and producing the item requires a required quantity of a required material, *the periodically generating occurs at fixed time intervals, the periodically generating occurs more than once during a manufacturing shift*, the determining the current state of the available inventory is performed such that the *determining the current state of the available inventory is completed immediately prior to the generating the work schedule and the material delivery schedule*, and *the obtaining the at least one outstanding customer order is performed such that the obtaining the customer order is completed immediately prior to the generating the work schedule and the material delivery*

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schedule, all as required by independent claim 1. Claims 2 – 11 depend from claim 1 and are allowable for at least this reason.

When discussing claim 19, the examiner has set forth:

> (Regarding claim 19) A method for scheduling work and delivery of material for mass-producing information handling systems in a factory comprising (Slotznick discloses a method for scheduling work for mass-produced items such as flowers and gift items; see 166, 168 and 154 in figure 8 for scheduling work; Examiner has used Yamamoto et al. to teach the need for scheduling the delivery of material by means of a raw material ordering system which determines required quantities for specific time periods. Regarding the use of the system for producing information handling systems the Slotznick method would be "capable" of scheduling work and delivery of information handling systems in a factory. It would be obvious for one of ordinary skill in the art of manufacturing to use the system of Slotznick for scheduling work for information handling systems in order to provide customers the ability to order and to efficiently schedule the manufacturing of information handling systems): (Final Office action dated December 5, 2005, Page 10.)

When discussing the obtaining a plurality of customer orders element of claim 19, the Examiner has set forth

> just as Slotznick discloses customer specifying components for gifts such as what type of flowers, vase, card, etc…customer's would for example specify components to their computer. (Final Office action dated December 5, 2005, Page 11.)

When discussing the determining a current state of an available inventory, the Examiner has set forth:

> Yamamoto et al discloses calculating inventory by adding one or more inventory sources together to get a total available inventory, for example as shown in figure 41. (Final Office action dated December 5, 2005, page 11.)

When discussing the periodically generating a work schedule element, the Examiner has set forth:

> Slotznick discloses periodically during the day checking if any new orders have been entered that must be shipped today and if so shipping the order today. In producing that shipment, the work schedule is generated to produce that shipment. Examiner has uses Yamamoto et al. to teach that it is old and well know to use material delivery schedules to provide efficient control of needed raw materials. (Final Office action dated December 5, 2005, Page 11.)

When discussing the determining the current state of the available inventory is completed immediately prior to the generating the work schedule, the Examiner has set forth:
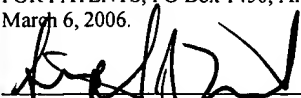
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Yamamoto et al. discloses the use of inventory data in determining order quantities and for setting daily production plans. (Final Office action dated December 5, 2005, Page 12.)

When discussing the obtaining each of the plurality of customer orders being completed immediately prior to the generating the work schedule, the Examiner has set forth:

> In Slotznick the customer order is obtained by the florist immediately prior to the generation of the work schedule in order to ship the order, figure 8. Examiner has used Yamamoto et al. to disclose the use of determining raw material needs and ordering that is based on existing inventory and orders. (Final Office action dated December 5, 2005, Page 12.)

However, Slotznick and Yamamoto, taken alone or in combination, do not disclose or suggest a method for scheduling work and delivery of material for mass-producing *information handling systems* in a factory which includes obtaining a plurality of customer orders, determining a current state of an available inventory of at least one component from a plurality of component sources and *periodically generating a work schedule and a material delivery schedule for producing the ordered information handling system using the customer order and the current state of the available inventory*. Much less such a method in which *each* customer order of the plurality of customer orders includes *an ordered information handling system*; the customer order specifies components for the corresponding ordered information handling system; producing the information handling system ordered by the customer requires a plurality of components; and, *at least one of the plurality of components varying from one ordered information handling system and another ordered information handling system based upon components specified by the customer order*. Much less such a system in which the determining the current state of the available inventory is performed such that the determining the current state of the available inventory is completed immediately prior to the generating the work schedule and the material delivery schedule; and the obtaining each of the plurality of customer orders is performed such that the obtaining the plurality of customer orders is completed immediately prior to the generating the work schedule and the material delivery schedule. All as required by new independent claim 19. Claims 20 – 30 depend from new claim 19 and are allowable for at least this reason.
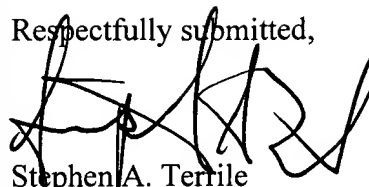
Respectfully submitted,

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